Energy and Environment
Thursday, March 25, 2010
3:00 P.M.
Third Floor, City Hall

Present:	**Chair:**	**CM B. Ackerson**
	Vice Chair:	**CM Peden**
	Members:	**CW Shanklin, CW Ward-Pugh and CM Heiner**

Chairman Ackerson began the meeting by announcing the members of the committee that were present. A quorum was established.

Special Items For Discussion – Louisville Water Company on the Wellhead Protection Program – Marsha Meyer, Hydrogeologist and Vince Guenthner, Legislative Director

Ms. Meyer and Mr. Guenthner provided an overview to the Wellhead Protection Program. Handouts were given to committee members (attached). The following was discussed:

- Riverbank Filtration
  - Unique natural filtration system through the aquifer
  - Clean source of drinking water
- Wellhead
  - Physical structure of the well above ground
  - Wellhead protection area is the area surrounding the wellhead through which contaminants are likely to move toward or reach the well
  - Majority of the well is below surface – about 100 feet
  - Location at the B.E. Payne Water Treatment Plant near Prospect, Kentucky
    - Protection area covers only a small portion of the county
- Wellhead Protection
  - The prevention of groundwater contamination by management of potential contaminant sources within a designated land area around a well or a spring
  - Primary Goal
    - To prevent future occurrences of groundwater contamination through public education, careful planning, and effective management of potential pollutants within the wellhead protection areas
  - Kentucky's Wellhead Protection Program (WHPP) has five steps for completion
    - Phase 1
      - Form a Local Planning Team – should reflect the diverse interests of the community
        - Civic organizations
        - Regulatory agencies
        - Government/public service organizations
          - Health Department
          - Zoning/Planning
          - State Agencies
        - Private organizations
          - Riverfields
        - Local citizens
      - Delineate Wellhead Protection Area
        - Louisville Water Company used sophisticated groundwater modeling software to depict the geologic conditions of the aquifer supplying the collector well, and the groundwater flow through the aquifer
        - Map reflects Wellhead Protection Areas (WHPA)
          - WHPA #1 – represents a 6 months' time of travel
          - WHPA #2A – represents a 5 year time of travel
          - WHPA #2B – represents a 10 year time of travel

        - WHPA #3 – represents a 20 year time of travel
- Phase 2
    - Inventory Potential Contaminant Sources
        - Louisville Water Company and the Local Planning Team has completed:
            - A review of state and federal databases for any listed potential contaminant in the Wellhead Protection Area
            - A windshield survey of the Wellhead Protection Area
                - Includes home owners/leasors that may be engaged in an activity that presents a high risk of contamination
                    - Septic systems
                    - Abandoned wells
                    - Heating/fuel oil tanks
                    - Dumping, etc.
                - Selected Commercial Properties
                    - Any business that may use, store, manufacture, distribute, or transport hazardous and non-hazardous materials
            - Perform risk assessment of potential contaminants
                - Potential contaminant discovered will be ranked according to the risk presented to the water supply
                    - Overall threat to public health
                    - Mobility of the potential contaminant
                    - Concentration of the potential contaminant
                    - Proximity of the potential contaminant to the well field
                - Examples of High Risk Activities/Land Use within or near the Wellhead Protection Area
                    - Appliance/small engine repair shops
                    - Auto repair and body shops
                    - Boat service and repair
                    - Car washes
                    - Cleaning service
                    - Fuel oil storage
                    - Gasoline stations
                    - Golf courses, parks, nurseries
                    - Salvage yards
                    - Medical services
                    - Sewage treatment facilities
                    - Lawn care
                    - Outdoor storage of chemicals
                - Examples of Moderate Risk Activities/Land Use within or near the Wellhead Protection Area
                    - Aboveground Storage Tanks
                    - Excavated Areas
                    - Parking Lots, Paved Areas
                    - Irrigation Wells
                    - Small Residential Lots served by septic systems
                    - Use of road salt
                    - Use of commercial fertilizers, pesticides, herbicides, septic system cleaners
    - Develop Management Approaches
        - Results of the Windshield Survey, Site Interviews & Risk Assessment
            - Prioritizes Risks
                - High/Low Impact
                - High/Low Frequency

- Detailed background information
  - Makes an informed decision
- Wellhead Protection Areas
  - WHPA #1(yellow) – Very high level of protection
  - WHPA #2(orange) – High level of protection
  - WHPA #3(red) – Medium level of protection
  - Outside area (green) – Low level of protection
- Existing Programs, Regulations, Rules – Encouraging Compliance
  - State of Kentucky
    - Groundwater Protection Plans
    - Underground Storage Tanks
    - Water Well Construction
    - Floodplain Management
    - Corrective Action Programs
    - Hazardous Materials
    - Universal Waste Rule
    - Agricultural Activities
  - City/County Government
    - Septic Systems
    - Zoning Ordinances
    - Hazardous Materials
    - Agricultural Activities
  - Management strategies
    - Heating oil tanks
    - Septic systems
    - Water wells
    - Transportation corridors
    - Recreational boating
    - Commercial pesticide sprays
    - Lawn care services
    - Poor housekeeping (Junk)
    - Underground storage tanks
  - Steps toward compliance
    - Discovery
    - Site interview
    - Inspection
    - Education
    - Notification
    - Encouragement
    - Track progress
    - Last resort – go to the State
    - Resolution
  - Groundwater Protection Plan requirement to the Division of Water, if you or your business, uses, stores, manufactures, distributes, or transports hazardous and non-hazardous materials

- Plan for the Future
  - Even with careful planning and management strategies, contamination incidents can occur due to leaks, spills, accidental releases, illegal discharges or other activities. Louisville Water Company and the Local Planning Team, in coordination with other local agencies, have developed emergency response plans.
- Public Education and Outreach

        - Inform and involve the public in the Wellhead Protection efforts and help build a community consensus for the plan
        - Encourage compliance with existing regulations
        - www.louisvillewater.com
            - Water Quality leads to the Wellhead Protection Program and other educational guides and information
    - Source Reduction Assistance Grant
        - Awarded to Louisville Water Company from the US EPA
            - Reduce air emissions by using low maintenance grasses
            - Reduce the use of pesticides and fertilizers by using native flowers, trees and shrubs
            - Restore open fields to prairies
            - Conserve energy
            - Example Garden built at the Payne Water Treatment Plant

General discussion was as follows:

- Maintained Wells in Louisville
    - Currently 1 in Operation
        - 10 million gallons per day production capacity
        - The water coming from this well is equal to the finished water coming out of the tap
            - This is before treatment
    - Completed construction on the tunnel will allow for 4 additional wells
        - They are at grade – not above ground structures
        - When on line, this will be the new source of water
        - Whatever contamination is there, is filtered at the beach
            - Intakes of the well are about 100 feet
                - The bottom of the River is about 35 to 40 feet
    - B.E. Payne Plant produced about 1/3 of the water treatment
- Crescent Hill Water Treatment
    - Phase I - in process of upgrading all the filter beds
    - Phase II - Installation of UV light
    - Phase III – Riverbank filtration (proposed)
- Abandoned and/or Unused Wells
    - State of Kentucky requires unused wells be properly closed
        - Domestic Wells
            - Can be filled with Bentinite (type of kitty litter) up to 40 feet below the surface
            - Then, pressure-grouted with concrete to the ground surface
            - Lastly, dirt filled and grass seed over it
        - Public Water Supply Well
            - Cement-grouted from the bottom to the top – depends on the diameter of well
- Strategic Initiatives
    - Supplying water to surrounding communities
    - Actively purposing grants to supply pipeline to Shelbyville
        - Possibly Fort Knox, Hardin County

Without objection, the meeting adjourned at 3:34 p.m.
KLP